

27 February 1961

STATINTL

[redacted]
P. O. Box 974
Washington 4,
D. C.

Dear John:

After many months and many promises of such a letter, I am finally getting down to sending you a progress report.

STATINTL

As you have probably heard as a result of [redacted] conversations with [redacted] we have made significant progress in the design of your lens. It has taken longer to reach this point than we had originally anticipated, but we are more confident than ever of being able to deliver a quality product to you. STATINTL

At the present time we do not have a completely refined design ready to go into fabrication. It is however, to the point where we are sure that we have a very sound approach. As the design now stands it is rather long drawn out affair, incorporating field flatteners a few inches away from the image and object planes. On the long conjugate side, the field flattener is located a long distance away from the central section of the lens. We realized that this constituted an assembly alignment problem of considerable magnitude which, if not solved, could prejudice the lens performance. We, therefore, tried to simplify this portion of the design in order to eliminate the field flattener. All efforts in this direction have resulted in reduced performance, and consequently we have returned to ^{the original} this approach. We are now pursuing a program of system refinement which we are confident will result in the final design of your system. We also feel that this particular design approach will establish a "building block" concept which will simplify the problem of designing 1:1, 2:1, 3:1 or other finite conjugate lenses in the future.

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We have been quite fortunate in being able, at long last, to add a top notch lens designer to our staff. He is [redacted] who was formerly in charge of the optical design group at [redacted] I will still be helping out in this area, but will be depending on him for keeping a sustained effort going on jobs such as yours. During the past year, more than one job has lagged on occasions because I was tied up in other areas (sales engineering, engineering

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STATINTL coordination with and managerial problems) with no one of caliber left to "tend the store".

In addition to acquiring a new engineer, we are expecting delivery of our "second generation" computing machine, a RPC-4000. This is a considerably more powerful computer than the present LGP-30's. We have already started writing the programs which will lead to the semi-automatic design of lens systems. The new machine and the new programs will not eliminate the need for a lens designer, but will simply eliminate much of the back-breaking work, speed up the design process and make the designer more productive.

I hope I will be seeing you again soon, and am looking forward to the day when we can send you word that we have completed the lens design and have started fabrication. I promise I will not delay so long again in reporting our progress.

Sincerely,

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EKT:rs

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TRANSMITTAL SLIP		DATE	8 March 1961
TO: [REDACTED]			
ROOM NO.	BUILDING		
[REDACTED]	[REDACTED]		
REMARKS:			
FROM: [REDACTED]			
ROOM NO.	BUILDING	EXTENSION	
603	Steuart	[REDACTED]	

FORM NO. 241
FEB 55

John
 Wonder if this will reach you
 at the PO Box address. Therefore
 sending you the copy. There is
 more to this than [REDACTED] notes!
 Return to [REDACTED]
 BSH / om

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